

Message Text

SECRET

PAGE 01 MOSCOW 09957 01 OF 02 212230Z

64

ACTION SS-25

INFO OCT-01 ISO-00 SSO-00 NSCE-00 DODE-00 CIAE-00 INRE-00

/026 W

----- 014101

O 161555Z JUL 75

FM AMEMBASSY MOSCOW

TO SECSTATE WASHDC IMMEDIATE 2294

S E C R E T SECTION 1 OF 2 MOSCOW 9957

EXDIS

C O R R E C T E D C O P Y (MISSNG PORTION OF TEXT)

E.O. 11652: XGDS-3

TAGS: PARM, US, US

SUBJECT: TTBT/PNE NEGOTIATIONS: REPORT OF EXPERT GROUP VI

MEETING, JULY 16, 1975 - TTBT/PNE DELEGATION

MESSAGE NO. 65

1. EXPERT GROUP VI - ADDITIONAL INFORMATION TO BE EXCHANGED-
COMPLETED ITS WORK ON JULY 16.

2. THE AGREED REPORT TO BE SUBMITTED TO THE HEADS OF THE
DELEGATIONS FOLLOWS:

BEGIN TEXT: I. IN ITS SIX MEETINGS, WORKING GROUP VI
EXAMINED THE VOLUME OF INFORMATION PROVIDED BY THE HOST
SIDE TO THE VERIFYING SIDE IN EXCESS OF INFORMATION TO BE
EXCHANGED FOR THE PURPOSE OF VERIFYING YIELDS OF PNES BY
TELESEISMIC MEANS.

AS A BASIS FOR DETERMINING THIS INFORMATION IT WAS AGREED,
EXCEPT FOR THE BRACKETED PHRASES THAT THE FOLLOWING WORDING
SUMMARIZED THE PURPOSE OF INFORMATION STUDIED BY GROUP VI:

"THIS INFORMATION PERTAINS TO CASES WHEN OYENBIELD OF
A SINGLE EXPLOSION IS NEAR THE THRESHOLD BRACKET OR EXCEEDS
IT BRACKET WHEN THE YIELD OF A GROUP EXPLOSION EXCEEDS THE
THRESHOLD IN THOSE CASES WHEN THE YIELD OF INDIVIDUAL EXPLOSIVE

SECRET

SECRET

PAGE 02 MOSCOW 09957 01 OF 02 212230Z

DEVICES IN A GROUP CANNOT BE DETERMINED BY TELESEISMIC MEANS

AND IT IS PLANNED TO USE THE FOLLOWING METHODS:

A. GROUND-MOTION MEASUREMENTS IN A CLOSE-IN ZONE;

B. MEASUREMENTS OF THE RADIUS OF THE SHOCK WAVE VS.
TIME IN THE HYDRODYNAMIC ZONE (INCLUDING THE SLIFER METHOD);

C. DETERMINATION OF THE SIZES OF EXCAVATIONS RESULTING
FROM THE EXPLOSION;

D. DETERMINATION OF FISSION YIELD ON THE BASIS OF MELT SAMPLES
BRACKET ONLY IN THOSE CASES WHEN THE YIELD OF A SINGLE
EXCAVATION EXPLOSION EXCEEDS THE THRESHOLD SET FOR LIMITED
NUCLEAR WEAPONS TESTS BRACKET."
THEUS SIDE DID NOT AGREE WITH THE BRACKETED PHRASES WHICH WERE
PROPOSED BY THE SOVIET SIDE.

II. TO DETERMINE THE NUMBER OF EXPLOSIONS AND INDIVIDUAL
YIELDS OF EACH EXPLOSION IN A GROUP WHOSE AGGREGATE YIELD
EXCEEDS THE AGREED LIMIT ON YIELDS OF INDIVIDUAL EXPLOSIONS,
THE INFORMATION LISTED BELOW SHOULD BE EXCHANGED:

A. SPECIFIC FEATURES OF GEOLOGIC STRUCTURE AND OTHER LOCAL
CONDITIONS THAT COULD INFLUENCE MEASUREMENTS OF INDIVIDUAL
YIELDS BY SUB-SURFACE SENSORS. FOR EXAMPLE, A DESCRIPTION
SHOULD BE PROVIDED OF LAYERS IN WHICH THE VELOCITY OF
PROPAGATION OF ELASTIC WAVES DIFFERS FROM THE AVERAGE VALUE
BY MORE THAN 1-1/2 TIMES UNDER THE FOLLOWING CONDITIONS:

(1) WHEN MEASURING PEAK PARTICLE VELOCITY, IF THE THICKNESS
OF THE LAYER IS GREATER THAN $10 Q^{1/3}$ METERS
THICK AND IF THE LAYER LIES IN THE REGION BETWEEN THE EXPLOSIVE
AND THE VELOCITY GAUGE;

(2) WHEN MEASURING SHOCK WAVE POSITION VERSUS TIME, A
GEOLOGICAL CROSS SECTION IS PROVIDED TO THE DISTANCE OF
 $10 Q^{1/3}$ FROM THE CANNISTER.

B. YIELD, LOCATION, AND TIMING OF INDIVIDUAL EXPLOSIVES
AS FOLLOWS:

- (1) THE TOTAL NUMBER OF EXPLOSIVES,
 - (2) THE PLANNED YIELD OF EACH EXPLOSION,
 - (3) THE DEPTH OF EMPLACEMENT OF EACH EXPLOSIVE,
 - (4) FOR EACH EMPLACEMENT HOLE THE LOCAL COORDINATES
- SECRET

SECRET

PAGE 03 MOSCOW 09957 01 OF 02 212230Z

IN A HORIZONTAL PLANE OF;

(A) THE COLLAR

(B) THE LOCATION OF THE HOLE AT EACH 200 METERS OF DEPTH;

(5) FOR EACH INSTRUMENT HOLE DRILLED FOR THE PURPOSE OF
YIELD VERIFICATION:

(A) THE TOTAL DEPTH,

(B) THE LOCAL COORDINATES OF THE COLLAR IN A HORIZONTAL
PLANE,

(C) THE LOCAL COORDINATES, IN A HORIZONTAL PLANE, OF THE HOLE AT EACH 200 METERS OF DEPTH.

(6) FOR EACH DEPTH OR LOCATION, THE MEASUREMENT SHOULD BE GIVEN WITH AN ERROR NOT GREATER THAN THE FOLLOWING:

(A) FOR 3., 4.A., 5.,A, AND 5.?, ABOVE, 1 METER.

(B) FOR 4.?, ONE PERCENT OF THE DISTANCE BETWEEN ANY TWO EXPLOSIVE EMPLACEMENT HOLES IN THE GROUP, OR ONE PERCENT OF THE MEASUREMENT OF DEPTH, WHICHEVER IS SMALLER, BUT IN NO CASE WILL THE ERROR BE REQUIRED TO BE LESS THAN 1 METER.

(C) FOR 5.:., ABOVE, ONE PERCENT OF THE DISTANCE BKWEEN THE INSTRUMENT HOLE AND THE CLOSEST EXPLOSIVE EMPLACEMENT HOLE OR ONE PERCENT OF THE MEASUREMENT OF DEPTH WHICHEVER IS SMALLER, BUT IN NO CASE WILL THE ERROR BE REQUIRED TO BE LESS THAN 1 METER.

SECRET

NNN

SECRET

PAGE 01 MOSCOW 09957 02 OF 02 161936Z

42

ACTION SS-25

INFO OCT-01 ISO-00 SSO-00 NSCE-00 /026 W

----- 080195

O 161555Z JUL 75

FM AMEMBASSY MOSCOW

TO SECSTATE WASHDC IMMEDIATE 2295

S E C R E T SECTION 2 OF 2 MOSCOW 9957

EXDIS

(7) THE PLANNED BRACKET AND ACTUAL BRACKET (BRACKETED BY SOVIET SIDE BECAUSE THEY BELIEVE THERE IS NO TECHNICAL JUSTIFICATION FOR THE WORDS IN BRACKETS), RELATIVE TIMES OF EACH EXPLOSION WITH AN ERROR NO GREATER THAN ONE PERCENT OF THE TIME REQUIRED FOR THE SHOCK WAVE TO TRAVERSE THE DISTANCE BETWEEN EACH EXPLOSION AND THE NEAREST ADJACENT EMPLACEMENT HOLES OR HOLE BEING USED TO MEASURE THE YIELD OF THE EXPLOSION BEING MEASURES.

(8) AN EQUIVALENT FORMULATION WITH SIMILAR SPECIFICATIONS FOR LOCATION AND ERROR WILL BE FOLLOWED FOR EMPLACEMENT OF EXPLOSIVES AND INSTRUMENT BY MEANS OF TUNNELS OR SHAFTS.

C. DESCRIPTION OF EQUIPMENT AND EMPLACEMENT CONFIGURATION FOR THE USE OF SLIFER OR OTHER METHODS FOR THE PURPOSE OF YIELD DETERMINATION BY MEASURING THE POSITION OF THE SHOCK

WAVE VERSUS TIME.

(1) DIMENSIONS OF THE CANNISTER CONLATAOMOMG THE EXPLOSIVE WHEN THE CANNISTER LENGTH IS GREATER THAN 30 METERS.

(2) A DESCRIPTION OF MATERIALS, INCLUDING DENSITY, USED TO STEM EMPLACEMENT HOLE.

III. WHEN IT IS NECESSARY TO MEASURE THE CRATERS FORMED BY AN EXCAVATION EXPLOSION FOR THE PURPOSE OF DETERMINING YIELDS BY EXTERNAL MEASUREMENTS THE INFORMATION LISTED BELOW SHOULD BE EXCHANGED.

A. REVIEW OF PREVIOUS CRATERING EXPERIENCE, INCLUDING EXPERIMENTAL DATA, IN GEOLOGIC MEDIA IN WHICH CRATERS WILL BE FORMED.

B. PRE-SHOT TOPOGRAPHIC MAP OF AREA TO BE CRATERED AT SCALE OF 1:1000 AND WITH CONTOUR INTERVAL OF 0.5 OR 1.0 METER AS
SECRET

SECRET

PAGE 02 MOSCOW 09957 02 OF 02 161936Z

APPROPRIATE, DEPENDING ON THE SLOPE OF THE GROUND.

C. POST-SHOT TOPOGRAPHIC MAP OF CRATERED AREA AT SCALE OF 1:1000 AND WITH CONTOUR INTERVAL OF 0.5 OR 1.0 METER AS APPROPRIATE, DEPENDING ON THE SLOPE OF THE GROUND.

IV. WHEN IT IS NECESSARY TO DETERMINE THE FISSION YIELD OF A CRATERING EXPLOSION THE INFORMATION LISTED BELOW SHOULD BE EXCHANGED.

A. DESIGN FEATURES OF THE PROJECT WHICH MAY HAVE AN ADVERSE EFFECT ON THE DETERMINATION OF FISSION YIELD ON THE BASIS OF MELT SAMPLES COLLECTED ON THE SURFACE, IF, AT THE TIME OF THE PROJECT, SUCH DESIGNS HAVE BEEN DEVELOPED. THE US SIDE BELIEVES THAT IN EVERY CASE THE GEOMETRY AND DEPTH OF THE EMPLACEMENT HOLE SHOULD BE PROVIDED.

B. BEFORE THE EXPLOSIONS, FOR THE PURPOSE OF ORIENTATION, A PRELIMINARY SCHEDULE FOR ACCESS TO THE CRATER AREA TO COLLECT MELT SAMPLES AFTER EXPLOSIONS.

V. INFORMATION CONTAINING THE SURVEY OF THE RADIATION FIELD FOR ADDITIONAL DETERMINATION OF FISSION YIELD WHICH IS BEING INSISTED UPON BY THE US SPECIALISTS WORKING IN GROUP VI AND WHICH, ACCORDING TO THE OPINION OF THE SOVIET SPECIALISTS OF THE GROUP, MUST BE PROVIDED BY THE VERIFYING SIDE ONLY AFTER BOTH SIDES AGREE ON THE FISSION YIELD MEASUREMENT METHODS WHICH UTILIZE RADIATION FIELD DATA.

VI. THE FOLLOWING ITEMS HAVE BEEN REFERRED TO DISCUSSIONS ON OBSERVER RIGHTS AND FUNCTIONS:

A. DRILLING SCHEDULE FOR EMPLACEMENT HOLES;

B. EMPLACEMENT SCHEDULE FOR EACH EXPLOSIVE;

C. PRE-SHOT AERIAL PHOTOGRAPH OF THE PROJECT AREA;

D. TIMELY IDENTIFICATION OF ANY INFORMATION ACCESSIBLE TO OBSERVERS THAT THE HOST PARTY DEEMS TO BE PROPRIETARY.

E. ELECTRICAL AND MECHANICAL DESIGN INFORMATION AND INSTALLATION INSTRUCTIONS CONCERNING THE ELECTRICAL EQUIPMENT IN SUFFICIENT DETAIL TO PERMIT DUPLICATION OF THE EQUIPMENT

SHALL BE EXCHANGED. END TEXT.

3. PLEASE ADVISE HOW ROCK STRENGTH SHOULD BE DEFINED AND
MEASURED. RODIONOV HAS NOT YET SUPPLIED SUCH INFORMATION
TO COMPLETE EXPERT GROUP I REPORT.
STOESSEL

SECRET

SECRET

PAGE 03 MOSCOW 09957 02 OF 02 161936Z

NOTE: MESSAGE AS RECEIVED.

SECRET

NNN

Message Attributes

Automatic DecapTIONing: Z
Capture Date: 01 JAN 1994
Channel Indicators: n/a
Current Classification: UNCLASSIFIED
Concepts: LIMITED TEST BAN TREATY, MEETING REPORTS, CONSULTANTS, PEACEFUL NUCLEAR EXPLOSIONS
Control Number: n/a
Copy: SINGLE
Draft Date: 16 JUL 1975
DecapTION Date: 28 MAY 2004
DecapTION Note: 25 YEAR REVIEW
Disposition Action: RELEASED
Disposition Approved on Date:
Disposition Authority: GolinoFR
Disposition Case Number: n/a
Disposition Comment: 25 YEAR REVIEW
Disposition Date: 28 MAY 2004
Disposition Event:
Disposition History: n/a
Disposition Reason:
Disposition Remarks:
Document Number: 1975MOSCOW09957
Document Source: CORE
Document Unique ID: 00
Drafter: n/a
Enclosure: n/a
Executive Order: X3
Errors: N/A
Film Number: D750251-1098
From: MOSCOW
Handling Restrictions: n/a
Image Path:
ISecure: 1
Legacy Key: link1975/newtext/t19750751/aaaabtrr.tel
Line Count: 237
Locator: TEXT ON-LINE, ON MICROFILM
Office: ACTION SS
Original Classification: SECRET
Original Handling Restrictions: EXDIS
Original Previous Classification: n/a
Original Previous Handling Restrictions: n/a
Page Count: 5
Previous Channel Indicators: n/a
Previous Classification: SECRET
Previous Handling Restrictions: EXDIS
Reference: n/a
Review Action: RELEASED, APPROVED
Review Authority: GolinoFR
Review Comment: n/a
Review Content Flags:
Review Date: 28 APR 2003
Review Event:
Review Exemptions: n/a
Review History: RELEASED <28 APR 2003 by GarlanWA>; APPROVED <29 APR 2003 by GolinoFR>
Review Markings:

Margaret P. Grafeld
Declassified/Released
US Department of State
EO Systematic Review
06 JUL 2006

Review Media Identifier:
Review Referrals: n/a
Review Release Date: n/a
Review Release Event: n/a
Review Transfer Date:
Review Withdrawn Fields: n/a
Secure: OPEN
Status: NATIVE
Subject: TTBT/PNE NEGOTIATIONS: REPORT OF EXPERT GROUP VI MEETING, JULY 16, 1975 - TTBT/PNE DELEGATION
TAGS: PARM, UR, US
To: STATE
Type: TE
Markings: Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 06 JUL 2006